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CLOTHES GUARD FOR STRIKER PLATE

Filed July 9, 1956

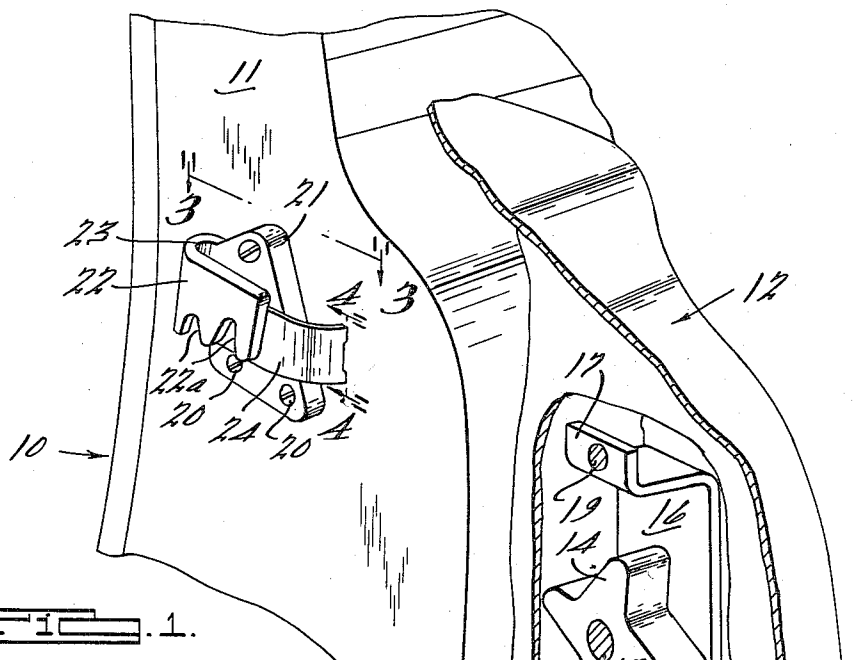


FIG. 1.

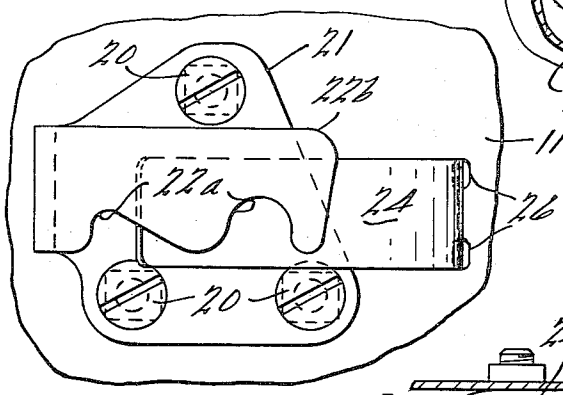


FIG. 2.

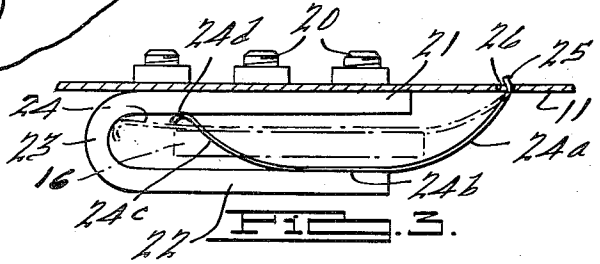


FIG. 3.

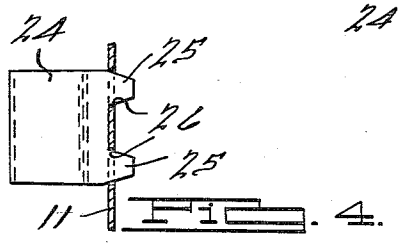


FIG. 4.

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CLOTHES GUARD FOR STRIKER PLATE

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12 Claims. (Cl. 292—341.14)

This invention relates to latch mechanisms and in particular to a clothes guard for a vehicle door latch having interengaging striker and latch elements on juxtaposed portions of the vehicle jamb and door.

A common objection to automobile body constructions is that elements of the vehicle door latch mechanism projecting from the jamb often catch and tear articles of clothing when a passenger is entering or leaving the vehicle, especially when the door cannot be fully opened, as for example when a number of vehicles are parked side-by-side.

It is accordingly an important object of the present invention to provide an improved latch mechanism having a particularly effective clothes guard which overcomes the foregoing objection.

Another object is to provide for a latch mechanism an improved spring-type clothes guard of simple economical construction which can be readily installed with existing striker devices with a minimum of expense or reconstruction of the latter.

Other objects of this invention will appear in the following description and appended claims, reference being had to the accompanying drawings forming a part of this specification wherein like reference characters designate corresponding parts in the several views.

Figure 1 is a fragmentary perspective view of a latch mechanism and clothes guard embodying the present invention and mounted on an automobile body pillar and door.

Figure 2 is an enlarged front elevational view of the door jamb, showing the striker plate and clothes guard mounted thereon.

Figure 3 is an enlarged horizontal sectional view taken in the direction of the arrows substantially along the arrows 3—3 of Figure 1.

Figure 4 is an enlarged fragmentary vertical sectional view taken in the direction of the arrows substantially along the line 4—4 of Figure 1.

It is to be understood that the invention is not limited in its application to the details of construction and arrangement of parts illustrated in the accompanying drawings, since the invention is capable of other embodiments and of being practiced or carried out in various ways. Also it is to be understood that the phraseology or terminology employed herein is for the purpose of description and not of limitation.

Referring to the drawings, a fragmentary portion of a vehicle body pillar 10 having a door jamb face 11 is illustrated with a portion of the vehicle door 12 in a partially open position. A portion of the edge panel 13 of the door 12 which confronts the jamb 11 is broken away to illustrate details of the keeper mechanism which is suitably secured to the panel 13. The keeper mechanism in the present instance comprises a gear-type keeper 14 rotatably mounted on the panel 13 by means of a shaft 15. Overlying and spaced from the keeper 14 is a sheet metal safety catch or plate 16 having offset

upper and lower footings 17 and 18 flush with the panel 13 and secured thereto by screws 19.

Secured to the jamb 11 by screws 20 is a base plate 21 for a striker plate 22. One end of the plate 22 is integrally connected with the base 21 by a loop portion 23 which spaces the base 21 and plate 22 sufficiently to enable passage of the catch plate 16 therebetween. The lower edge of the plate 22 is formed with a number of notches 22*a* adapted to receive the teeth of the keeper 14 when the door 12 is closed.

In operation of the structure described thus far, when the door 12 is closed, the catch 16 moves into position between the base 21 and plate 22 and the teeth of the gear-type keeper 14 roll into interlocking engagement with the notches 22*a*. Suitable handle-operated latch means, not shown, is preferably carried by the door for releaseably holding the keeper 14 against rotation after the door is completely closed, thereby to prevent inadvertent opening of the door in a movement laterally of the vehicle body. The catch 16 interposed between the base 21 and plate 22 prevents displacement between the keeper 14 and striker plate 22 longitudinally of the vehicle body, thereby to assure against accidental opening of the door 12 in the event that the latter and pillar 10 are sprung longitudinally from each other, as for example in consequence of a collision. The construction and operation of the foregoing parts may be conventional and are accordingly not described in further detail.

Heretofore articles of clothing, such as a coat pocket for example of a passenger entering or arising from the vehicle, would tend to enter the space between the base 21 and plate 22 and catch and tear either on the latter's upper outer corner 22*b* or on the depending prong defining the outer notch 22*a*. In order to avoid damage to clothing, a clothes guard 24 cooperable with the plate 22 is provided comprising an arcuate sheet metal spring strip having a pair of integral tabs 25 at one end removably insertable into openings 26 in the door jamb 11. As illustrated in Figure 3, a cam portion 24*a* of the guard 24 extends toward the outer end of the plate 22 from the tabs 25 and merges with an intermediate guard portion 24*b* which is flattened under spring pressure against the inner surface of the striker plate 22 confronting the base 21. The portion 24*b* in turn merges arcuately with an inner guard portion 24*c* which extends toward the base 21 and terminates in a reversely bent glider portion 24*d* resiliently maintained in sliding engagement with the base 21.

The upper edge of the guard 24 is substantially above the uppermost portions of the notches 22*a* and preferably adjacent the upper edge of the plate 22, the latter's outer upper corner 22*b* being rounded to avoid a sharp corner which might otherwise catch or tear clothing. The lower edge of the guard 24 extends substantially below the lower edge of the plate 22. Thus when a passenger enters or arises from the vehicle, his clothing, which might otherwise catch on the plate 22, now rides over the surface of the guard 24 and is prevented from entering between the base 21 and plate 22 and catching on the latter.

Assembly of the guard 24 with a conventional latch mechanism as described is readily accomplished merely by forming the holes 26 and forcing the inner guard portions 24*a*, *b* and *c* under spring tension between the plate 22 and base 21 until the tabs 25 snap into their positions shown within the holes 26. When the door 12 is closed, the safety catch 16 first engages and rides along the cam portion 24*a*, thereby to spring the guard 24 to the position indicated in phantom, Figure 3, as the door moves to its fully closed position and the catch 16 moves between the base 21 and plate 22. Upon

subsequent opening of the door, the resilient guard 24 returns by spring action to the solid line position shown to serve as an effective clothes guard.

I claim:

1. In a latch mechanism, a striker secured to a supporting means and having a portion offset from said supporting means for interlocking with a catch, and a resilient clothes guard having a fixed end engaging said supporting means and also having a yieldable portion disposed between said supporting means and offset portion and yieldingly engaging the latter under spring tension.

2. In a latch mechanism, a striker plate secured to a supporting means and having a portion offset from said supporting means for interlocking with a catch, and a clothes guard of resilient sheet material having a portion disposed between said supporting means and said offset portion and yieldingly engaging the latter under spring tension, said guard having a fixed end secured to said supporting means.

3. In a latch mechanism, a striker having a portion offset from a supporting means for interlocking with a catch, and a clothes guard of resilient material having a portion disposed between said supporting means and said offset portion and yieldingly engaging the latter, said guard having a catch engaging portion extending in one direction toward said supporting means from said offset portion effective to cam said guard away from said offset portion upon movement of said catch between said supporting means and offset portion, said catch engaging portion terminating at one end in a tab removably anchored within an opening in said supporting means, said guard also having a portion extending oppositely to said one direction and slidably engaging said supporting means.

4. In a latch mechanism, a striker having a portion offset from a supporting means for interlocking with a catch, and a clothes guard of resilient material having a portion disposed between said supporting means and said offset portion and yieldingly engaging the latter under spring tension, said guard having a catch engaging portion effective to cam said guard away from said offset portion upon movement of said catch into position between said supporting means and offset portion, said catch engaging portion extending toward said supporting means and being anchored thereto.

5. In a latch mechanism, supporting means, a striker secured to said supporting means and having a portion offset from said supporting means for interlocking with a catch, and a resilient clothes guard having opposite end portions engaging said supporting means and also having an intermediate portion disposed between said supporting means and offset portion and yieldingly engaging the latter, said guard also having a catch engaging portion extending from said intermediate portion toward one of said opposite end portions and being effective to cam said intermediate portion away from said offset portion upon movement of said catch between said supporting means and offset portion.

6. In a latch mechanism, supporting means, a striker plate secured to said supporting means and having a portion offset from said supporting means for interlocking with a catch, and an arcuate clothes guard of resilient sheet material having opposite end portions engaging said supporting means and also having an intermediate portion disposed between said supporting means and offset portion and yieldingly engaging the latter under spring tension, one of said opposite end portions slidably engaging said supporting means, and the other end portion terminating in a tab removably anchored within an opening in said supporting means.

7. In a latch mechanism, supporting means, a striker secured to said supporting means and having a portion offset from said supporting means for interlocking with a catch, and a resilient clothes guard having opposite

end portions engaging said supporting means and also having an intermediate portion disposed between said supporting means and offset portion and yieldingly engaging the latter, said guard also having a catch engaging portion extending from said intermediate portion toward one of said opposite end portions and being effective to cam said intermediate portion away from said offset portion upon movement of said catch between said supporting means and offset portion, said one end portion being anchored to said supporting means.

8. In a latch mechanism, supporting means, a striker secured to said supporting means and having a portion offset from said supporting means for interlocking with a catch, and an arcuate clothes guard of resilient material having opposite end portions engaging said supporting means and also having an intermediate portion disposed between said supporting means and offset portion and yieldingly engaging the latter, said guard also having a catch engaging portion extending from said intermediate portion toward one of said opposite end portions and being effective to cam said intermediate portion away from said offset portion upon movement of said catch between said supporting means and offset portion, said one end portion being anchored to said supporting means and the other end portion slidably engaging said supporting means.

9. In a latch mechanism, supporting means, a striker plate connected to said supporting means and being offset therefrom for interlocking with a catch, said striker plate also having a toothed edge engageable with a keeper, and a resilient clothes guard disposed between said supporting means and striker plate and yieldingly engaging the latter, said guard having an edge adjacent said toothed and also having a catch engaging portion effective to cam said guard away from said striker plate upon movement of said catch between said supporting means and striker plate, said catch engaging portion extending angularly from said striker plate toward said supporting means and being anchored to the latter.

10. In a latch mechanism, supporting means, a striker plate connected to said supporting means and being offset therefrom for interlocking with a catch, said striker plate also having a toothed edge engageable with a keeper, and a resilient clothes guard disposed between said supporting means and striker plate and yieldingly engaging the latter, said guard having an edge extending edgewise of said plate beyond said toothed edge and also having a catch engaging portion effective to cam said guard away from said striker plate upon movement of said catch between said supporting means and striker plate, said catch engaging portion extending angularly from said striker plate toward said supporting means and being anchored thereto, said catch engaging portion bridging the space between said striker plate and supporting means.

11. In a latch mechanism, supporting means, a striker plate connected to said supporting means and being offset therefrom for interlocking with a catch, said striker plate also having a toothed edge engageable with a keeper, and an arcuate clothes guard of resilient material having an intermediate portion disposed between said supporting means and striker plate and yieldingly engaging the latter under tension adjacent said toothed edge, said guard also having opposite end portions engaging said supporting means, one of said end portions being anchored to said supporting means, said guard also having a catch engaging portion between said intermediate portion and said striker plate to cam said intermediate portion away from said striker plate upon movement of said catch between said supporting means and striker plate.

12. In a latch mechanism, supporting means, a striker plate connected to said supporting means and being offset therefrom for interlocking with a catch, said striker plate also having a toothed edge engageable with a keeper, and an arcuate clothes guard of resilient material having an intermediate portion disposed between said supporting means and striker plate and yieldingly engaging the latter

under tension adjacent said toothed edge, said guard also having opposite end portions engaging said supporting means, said guard having a catch engaging portion effective to cam said intermediate portion away from said striker plate upon movement of said catch into position between said striker plate and supporting means, said catch engaging portion extending beyond said plate from said intermediate portion toward one of said end portions, said one end portion being anchored to said supporting means, the opposite of said end portions being shiftable with respect to said supporting means.

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UNITED STATES PATENT OFFICE

CERTIFICATE OF CORRECTION

Patent No. 2,854,276 September 30, 1

James S. Svenson

It is hereby certified that error appears in the printed specificat of the above numbered patent requiring correction and that the said Lett Patent should read as corrected below.

Column 4, line 32, after "toothed" insert -- edge --.

Signed and sealed this 16th day of December 1958.

(SEAL)
Attest:
KARL H. AXLINE
Attesting Officer

ROBERT C. WATSO
Commissioner of Pate